

CHAPTER 2: RESULTS FROM THE 2004 CAHSEE ADMINISTRATIONS

Introduction

The legislation establishing the CAHSEE called for the first operational forms of the exam to be administered in spring 2001 to 9th graders in the Class of 2004. At the first administration 9th graders could volunteer, but were not required, to take both portions of the exam. Students who did not pass the exam in that administration were required to take the exam as 10th graders in spring 2002. Preliminary results from the CAHSEE spring 2001 and 2002 administrations were reported in the Year 2 and Year 3 evaluation reports (Wise et al., June 2001; Wise et al., June 2002b). Results from the 2001 administration were reported more fully in the first of the biennial evaluation reports to the Legislature, Governor, Board, and the CDE (Wise et al., Jan. 2002a).

The CAHSEE was administered six more times from July 2002 through May 2003 to students in the Class of 2004 who had not yet passed one or both parts. In addition, students from the Class of 2005 were required to take the CAHSEE for the first time as 10th graders in March or May of 2003. Analyses of results from these administrations were reported in the Year 4 evaluation report (Wise, et al., Sep. 2003) and in the second biennial evaluation report (Wise et al., 2004). All of these reports are available on the CDE Web site at <http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>.

The 2004 administrations analyzed for this report were less complicated than in prior years. With the exception of a small number of adult education students, only a single cohort, 10th graders from the Class of 2006, was tested. Students from the classes of 2004 and 2005 were no longer required to pass the CAHSEE and so were not further tested. This was the second time that an entire cohort of students was tested. In 2003, 10th grade students in the Class of 2005 were required to take the CAHSEE. Our analyses provide comparisons of the 2004 results for the Class of 2006 to the 2003 results for the Class of 2005.

Another important feature of the 2004 administrations is that the score scale was reset to reflect changes to the test specifications. The Board adopted revised test blueprints for use beginning with the Class of 2006. The changes included shortening the ELA test to allow it to be administered in a single day and minor reductions in item frequencies for some of the more advanced standards in mathematics. In addition, efforts were made to develop test questions that assessed mastery of targeted standards in less complicated ways and the requirement to match item difficulties to the initial CAHSEE form (March 2001) was eliminated. Students scored slightly lower on the new ELA scale and somewhat higher on the new Mathematics scale. Differences in passing rates due to the score scale changes are accounted for to provide best estimates of increases in student performance from 2003 to 2004.

Who Tested?

Tables 2.1 and 2.2 show the number of students participating in each of the three CAHSEE administrations during the 2003–04 school year. Separate counts are shown for students taking the regular administration of the test, those taking it with accommodations, and with modifications. Additionally, some students' scores were flagged as incomplete on the file that we received from ETS. Counts also are shown separately by the grade level reported for each student. A small number of adult education students took the CAHSEE during 2004. These students were eliminated from further analyses, which focused on the 10th graders.

Note that, unlike in prior years, the CDE did not collect detailed information on specific accommodations provided. Administrators indicated whether the student received an accommodation consistent with their IEP, a 504 plan, or, for EL students, in accordance with the way they normally received instruction. Administrators also indicated whether the student received a special version of the CAHSEE (Braille, Large Print, or Audio CD). Information on other accommodations, such as small-group administration or reading directions in languages other than English, was not recorded. Administrators also indicated whether students received a test modification that would invalidate their scores. Information about specific modifications was the same as in prior years.

In all, 468,443 answer documents were processed for 10th graders in the Class of 2005. Another 1,299 answer documents were processed for students in adult education or other unspecified grades. Many students participated in more than one administration so the number of students tested was fewer than the number of answer documents processed. In some cases, students were unable to take both parts during the normal administration, due to absence or other reason, and made up the missing part at a subsequent testing session. In other cases, students who did not pass one or both parts of the exam in February or March retook that portion of the test in May. Matching students across administrations is difficult due to minor differences in how names or school-supplied identifiers were coded. Checking potential matches was particularly difficult this year, as birth date information, important for confirming matches, was missing for about two-thirds of the students in the February and March administrations. Nonetheless, we did match over 9,000 records across different administrations to provide better estimates of the total number of different students participating in the 2004 CAHSEE assessment and to provide more accurate estimates of the number of students passing both parts of the examination.

Overall, passing rates were about 70 percent in the February and March administrations and somewhat lower in May. Many of the students taking the CAHSEE in May had not passed one or both parts of the CAHSEE in the February or March administrations and so were less likely to be high scoring. Adult education students passed at lower rates, around 50 percent. Students whose grade could not be determined passed at even lower rates.

TABLE 2.1. Number of Students Taking the CAHSEE ELA Test in 2003–04 by Administration Type and Date

Administration Type	Administration Date:				
	Statistic	Feb. 04	Mar. 04	May 04	Total
10th Graders Students					
Regular	N	141,917	281,839	11,645	435,401
	% Pass	75.2%	77.6%	50.4%	76.1%
Accommodation	N	4,420	8,631	321	13,372
	% Pass	22.3%	25.1%	5.6%	23.7%
Modification	N	1,145	1,739	97	2,981
	% > 349	17.3%	18.3%	10.3%	17.7%
Not Tested	N	4,694	7,689	4,306	16,689
TOTAL	N	152,176	299,898	16,369	468,443
	% Pass	70.7%	73.7%	36.0%	71.4%
Other Grades/Adult Education					
Regular	N	135	898	87	1120
	% Pass	45.9%	49.4%	43.7%	48.6%
Accommodation	N	0	11	0	11
	% Pass		9.1%		9.1%
Modification	N	0	0	0	0
	% > 349				
Not Tested	N	16	131	21	168
TOTAL	N	151	1040	108	1,299
	% Pass	41.1%	42.8%	35.2%	42.0%

In the analyses that follow, we matched duplicate records across administrations. This was done in two passes. First, records indicating the same school and first and last name were checked. Such cases were accepted as matches if the middle initial did not differ, the birth day did not differ (or was missing), and if there were not one or more other students in the school with the same last and first name. In a second pass, records not yet paired up were matched on school code and school-supplied student identifier. Visual inspection indicated that, in all cases, the names on the records matched were essentially the same except for minor variations usually in the first name.

TABLE 2.2. Number of Students Taking the CAHSEE Mathematics Test in 2003–04 by Administration Type and Date

Administration Type	Administration Date:				
	Statistic	Feb. 04	Mar. 04	May 04	Total
<i>10th Grade Students</i>					
Regular	N	142,410	282,205	11,054	435,669
	% Pass	72.6%	76.9%	46.3%	74.7%
Accommodation	N	3,171	6,182	234	9,587
	% Pass	26.9%	30.6%	15.4%	29.0%
Modification	N	2,419	4,105	146	6,670
	% > 349	21.8%	22.4%	17.8%	22.1%
Not Tested	N	4,176	7,406	4,935	16,517
TOTAL	N	152,176	299,898	16,369	468,443
	% Pass	68.5%	73.0%	31.5%	70.1%
<i>Other Grades/Adult Education</i>					
Regular	N	125	859	90	1,074
	% Pass	36.8%	44.9%	35.6%	43.2%
Accommodation*	N	0	8	0	8
	% Pass		50.0%		50.0%
Modification	N	0	6	0	6
	% > 349		0.0%		0.0%
Not Tested	N	26	167	18	211
TOTAL	N	151	1,040	108	1,299
	% Pass	30.5%	37.5%	29.6%	36.0%

Analysis of the Test Score Data

A number of potential issues with the data on test scores were addressed before we analyzed the results. First, we took steps to match records for students who participated in more than one testing session. We wanted to remove duplication in counts of the total number of students tested and to be able to estimate the number of students who passed both parts of the CAHSEE. Second, we looked at changes in the score scale for ELA and for mathematics, and then estimated what the 2003 10th grade passing rates, overall and by subgroups, would have been if the new score scale were used. Third, we reviewed ETS's analyses of score accuracy and specifically looked at the consistency with which the student essays were scored.

Matching Student Records from Different Administrations

In response to data analysis requirements in the 2001 federal No Child Left Behind (NCLB) Act, the state legislature passed SB1453 requiring the establishment of student identifiers for all California public or charter school students. When the statewide student identifiers called for by SB1453 are fully implemented by the California School Information Services (CSIS), matching records for students participating in different test administrations will be “relatively” easy (CSIS, 2004). Unfortunately CSIS student identifiers were not widely used with the 2004 CAHSEE

administrations. For 2004, we had to match records on school identifiers and student names or, in some cases, on identifiers supplied by schools on a voluntary basis. As usual, there were numerous cases in which student names were not coded consistently across different administrations. Checking potential matches was further hampered by the fact that the birth dates were missing for about two-thirds of the February and March examinees on the files supplied by ETS.

We proceeded to match records in two phases. In the first phase, records from the March administration were matched to records from the February administration and records from the May administration were matched to records from both the February and March administration by school code and last and first name. We first eliminated cases where more than one student in a school had the same last and first name to eliminate ambiguities in potential matches. For the matches we did find, we looked for consistency in school-supplied identifiers, middle initial, and birthday. Potential matches were eliminated if there were positive conflicts (not just missing data) in any of these variables.

Next, we sorted the records within each school by school-supplied identifiers. We dropped records for which no identifier was supplied. We matched records from different administrations on school and student identifier. We eliminated the matches found in the first phase and printed out all cases where the matching records had different first or last names. In all cases, the names were clearly the same.

Table 2.3 shows the number of records matched from each of these steps. We further distinguished cases where students took different tests in different administrations (makeup cases) from cases where students appeared to have taken the same test more than once (retest cases). In all, 7,864 makeup records and 1,833 retest records were matched across administrations. While we are highly confident that virtually all of the cases identified were valid matches, we are also sure that we did not find all instances where students had records for more than one administration. We missed instances where names were not coded consistently and student identifiers were missing or inconsistently coded. The relatively small number of matches found in Phase 2 suggests that name inconsistencies are not that common so that further effort to match records would not have produced substantially different results.

TABLE 2.3. Records Matched from Different Administrations

Administrations	Matches			Type of Match	
	Phase 1	Phase 2	Total	Makeup	Retest
Mar.-Feb.	2,194	168	2,362	2,138	224
May-Feb.	1,748	81	1,829	1,635	194
May-Mar.	4,986	199	5,185	4,286	899
Total	8,928	448	9,376	8,059	1,317

Computing Passing Rates

A key issue in computing and reporting passing rates for the CAHSEE is what to use as the denominator. The two main choices are the number of students who took

each test and the number of students subject to the CAHSEE requirement. In this report, as in our prior reports, we have opted for the latter, reporting the proportion of all students in the target populations who have passed. However, the number of students in the target populations fluctuates with daily enrollment changes. Table 2.4 compares fall enrollment counts (reported by DataQuest), enrollment counts from the STAR testing which occurred closer in time to the CAHSEE testing dates, and record counts from the CAHSEE. The CAHSEE is now also being used for 10th grade accountability under NCLB requirements. Essentially all students must be tested to meet NCLB participation requirements, so the CAHSEE counts appear to be reasonably complete. Total CAHSEE record counts were used in computing passing rates for this report. STAR reports include the number of students tested in different demographic groups, but do not include separate enrollment counts for these groups. The CAHSEE data provide for consistent counts for each demographic group of interest. Comparative passing rates from the 2003 CAHSEE administrations for the Class of 2003 were recomputed using the same approach. Note that the CAHSEE record counts used here were based on matching records across administrations to avoid counting students more than once. This step requires access to student identifiers. The counts reported here thus provide new information not available to the CDE, since student identifiers are not included on CDE files.

TABLE 2.4. 10th Grade Enrollment Estimates from DataQuest, STAR, and CAHSEE

Source	2002-03 10 th Grade Counts	2003-04 10 th Grade Counts
Fall Enrollment (Data Quest)	471,648	490,214
STAR Reported Enrollment	457,181	475,181
STAR Students Tested	427,454	452,217
CAHSEE Student Counts*	425,066	459,138
CAHSEE Students Taking the ELA Test	402,594	450,255
CAHSEE Students Taking the Math Test	414,903	450,928
CAHSEE Students Taking Both Tests	392,431	442,047

* CAHSEE record counts, after merges to remove duplication, were used in computing passing rates.

New Score Scale

In constructing the initial CAHSEE form, administered in March 2001, test items were selected from a pool of questions that had been tried out in initial field tests. The selection of these items was guided by test blueprints specifying the number of questions to be included for each of the target content standards. In selecting test items for subsequent forms of the CAHSEE, attempts were made to match the average difficulty of the questions in the initial form as well as to match the required targets for each content standard. When the Board deferred the CAHSEE requirement to the Class of 2006, it also made minor changes to the test blueprints. The ELA test was shortened, dropping one of the two essay questions, to allow for

administration in a single day. The blueprint for the mathematics test was changed slightly, reducing the number of questions required for more advanced algebra topics.

Trial forms of the ELA and mathematics tests were constructed following the revised blueprints and used in standard setting workshops. In constructing these trial forms, no attempt was made to match the item difficulties in the original CAHSEE form. In fact, in mathematics, the questions included in the trial form were somewhat easier than the questions used in the initial CAHSEE test form. This shift in difficulty reflected changes in the pool of available questions and also improved the accuracy of scores for students at or below the passing level, where accurate information was most important.

The Board decided to keep the percent of correct answers required for passing at the same level set for the March 2001 CAHSEE form: 55 percent for the mathematics test and 60 percent of possible score points for the ELA test. ETS adjusted the reporting scale so that the minimum passing score would still be at 350 (technically 349.5) under the revised test specifications. Passing rates, in terms of percent correct, have varied slightly as a function of small differences in overall test difficulty. In addition, each scale was stretched or compacted slightly so that the minimum score for proficiency as used with NCLB would be 380 (previously the minimum score for proficiency was 387 for ELA and 373 for Mathematics). The top of the new scale was truncated at a maximum score of 450 as before, but the lower end of the scale was truncated at 275 rather than 250. Note that the expected score from random guessing on the new scales is about 290 for ELA and 305 for mathematics. (See Tables 2.5 and 2.6 below.)

In order to compare results from the 2003 and 2004 administrations, we needed to put scores from these two administrations on the same scale. We developed a conversion from the old scale to the new scale based on the underlying item response theory (IRT) scale, which has been held constant. This scale, which measures both item difficulty and examinee ability, was set so that item difficulties from the first field test had a mean of zero and a standard deviation of 1. AIR, the original test development contractor, referred to the underlying IRT scale as a logit scale, consistent with terminology used for the Rasch (1-parameter) IRT model. In the technical report for the 2001 administration (Smith et al., 2002, page M-3), the logit to scale conversion equations defined the standard score (SS) scale as:

$$\text{Old Math SS} = 34.4828 * \text{logit} + 342.7586$$

$$\text{Old ELA SS} = 37.0370 * \text{logit} + 334.0741$$

When ETS took over development and administration of the CAHSEE, they maintained this same scale, although they referred to it as a *theta* scale (terminology used with a wider range of IRT models). In ETS's March 15, 2004 memo (Way, 2004) on equating, the *theta* to scale score conversions are given as:

$$\text{New Math SS} = 32.2900 * \text{theta} + 352.2119$$

$$\text{New ELA SS} = 33.7230 * \text{theta} + 332.1605$$

Since theta and logit are the same scale, a little algebra yields the result that:

$$\text{New Math SS} = .9364 * \text{Old Math SS} + 31.2528$$

$$\text{New ELA SS} = .9105 * \text{Old ELA SS} + 27.9787$$

The result of the changes in test specifications was that slightly fewer students would have passed the ELA test this year and somewhat more students would have passed the mathematics test. Complete comparisons are provided later in this chapter.

Equating the 2004 Test Forms

We also examined the test forms used in each of the three 2004 administrations. ETS conducted equating analyses to convert number-correct scores from each form to scale scores that were as comparable as possible. The analyses were reasonably documented and we did not have any disagreements with either the procedures used or the results. Tables 2.5 and 2.6 provide the final raw-to-scale score conversions for each of the three 2004 CAHSEE forms.

TABLE 2.5. Raw-to-Scale Score Conversions for the 2004 ELA Tests

Raw Score	Scale Score			Raw Score	Scale Score		
	Feb. 04	Mar. 04	May 04		Feb. 04	Mar. 04	May 04
0-15	275	275	275	51	344	344	341
16	276	276	277	52	346	346	343
17	279	279	279	53	348	348	344
18	282	281	281	54	350	350	346
19	284	284	283	55	352	352	348
20	287	286	285	56	354	354	350
21	289	289	287	57	356	356	352
<u>22</u>	<u>291</u>	<u>291</u>	<u>289</u>	58	358	358	354
23	293	293	291	59	360	360	356
24	295	295	293	60	362	362	358
25	297	297	295	61	364	364	360
26	299	299	297	62	366	366	362
27	301	301	299	63	368	368	364
28	303	303	300	64	371	371	366
29	305	306	302	65	373	373	368
30	307	308	304	66	375	379	370
31	309	309	306	67	378	378	372
32	310	310	307	68	380	380	375
33	312	312	309	69	383	386	377
34	314	314	311	70	385	389	380
35	316	316	313	71	388	392	382
36	317	317	314	72	391	394	385
37	319	319	316	73	394	397	388
38	321	321	318	74	397	400	391
39	323	323	320	75	400	404	394
40	325	325	321	76	403	407	397
41	326	326	323	77	407	411	400
42	328	328	325	78	411	415	404
43	330	330	327	79	415	419	408
44	332	332	328	80	419	423	412
45	333	333	330	81	424	428	416
46	335	335	332	82	429	433	421
47	337	337	334	83	434	438	426
48	339	339	335	84	441	445	432
49	341	341	337	85	448	450	439
50	342	342	339	86	450	450	447
				87-90	450	450	450

Note: Bolded numbers reflect minimum scores for passing and for proficiency; underlined scale scores indicate expected scores from guessing alone (chance).

TABLE 2.6. Raw-to-Scale Score Conversions for the 2004 Mathematics Tests

Raw Score	Scale Score			Raw Score	Scale Score		
	Feb. 04	Mar. 04	May 04		Feb. 04	Mar. 04	May 04
0-9	275	275	275	45	354	354	354
10	275	275	277	46	356	356	356
11	279	279	281	47	357	357	358
12	282	283	284	48	359	362	360
13	286	286	287	49	361	361	361
14	289	289	290	50	363	363	363
15	292	292	293	51	365	365	365
16	295	295	296	52	367	367	367
17	297	297	297	53	369	369	369
18	300	300	301	54	371	371	371
19	302	302	304	55	373	373	373
20	<u>305</u>	<u>305</u>	<u>305</u>	56	375	378	375
21	307	307	308	57	377	381	378
22	309	309	310	58	380	383	380
23	312	312	313	59	382	382	382
24	314	314	315	60	384	387	384
25	316	316	317	61	386	390	387
26	318	318	319	62	389	389	389
27	320	320	321	63	392	392	392
28	322	322	323	64	394	394	395
29	324	324	325	65	397	401	397
30	326	326	326	66	400	403	400
31	328	328	329	67	403	407	403
32	330	330	330	68	406	410	407
33	332	332	332	69	410	413	410
34	334	334	334	70	414	417	414
35	335	335	336	71	418	421	418
36	337	337	338	72	422	426	423
37	339	339	339	73	427	431	428
38	341	341	341	74	433	437	433
39	343	343	343	75	439	443	440
40	345	345	345	76	447	450	448
41	346	346	347	77-80	450	450	450
42	348	348	349				
43	350	350	350				
44	352	352	352				

Note: Bolded numbers reflect minimum scores for passing and for proficiency; underlined scale scores indicate expected scores from guessing alone (chance).

Scoring Consistency

In past reports, we have examined the accuracy of the scores generated from different parallel forms of the exam. During the Year 5 evaluation, we monitored ETS's analysis of item-level statistics from each administration and found no significant changes from the results for prior forms. More complete information on test accuracy may be found in technical documentation provided by ETS.

We paid particular attention to consistency in the scoring of student essays. In previous years, each student taking the ELA test was required to write two essays, the first involving analysis of an associated text and the second in response to a freestanding question that did not involve text processing. In 2004, the ELA test was shortened and students were only required to write one essay. The type of essay prompt varied across administrations. In the February and May administrations, students responded to a stand-alone prompt, while in March the essay question was associated with a text that also had multiple-choice reading comprehension questions.

As in prior years, each essay was graded by at least two different raters following a four-point rubric that indicated the characteristics essay responses required for each score level. A score of zero was assigned to responses that were off-topic, illegible, or left blank. Since the scoring rubrics vary from question to question, we monitored the level of agreement between independent raters for each question used with each administration. Table 2.7 shows, for each of the 2004 test forms and also for the 2002–03 test forms, how often (what percent of the time) there was exact agreement, how often there was a difference of just one score point, and how often there was a difference of more than one score point. Whenever there was an initial difference of more than one score point, the essay was read again by a third, more experienced reader and the scores assigned by one or both of the initial readers were not used. Thus, all operational scores resulted from two raters who agreed to within a single score point.

TABLE 2.7. Rater Scoring Consistency for Student Essays

Administration	Percent of Essays at Each Level of Agreement					
	1st Essay (Associated Text)			2nd Essay (Stand-alone Prompt)		
	Exact	+/- 1	+/- > 1	Exact	+/- 1	+/- > 1
July 2002	65.2	33.0	1.8	66.2	32.2	1.6
Sep. 2002	68.2	30.7	1.0	69.0	30.0	0.9
Nov. 2002	71.3	27.9	0.8	68.4	30.8	0.8
Jan. 2003	70.6	28.2	1.1	70.3	28.9	0.8
Mar. 2003	64.5	33.6	1.9	62.2	36.2	1.6
May 2003	70.1	29.2	0.7	69.4	29.9	0.7
Weighted Average	65.8	32.5	1.7	63.9	34.7	1.4
Feb. 2004				66.3	33.0	0.8
Mar. 2004	62.0	36.6	1.4			
May 2004				68.5	31.5	0.0

Overall results indicated a generally high level of agreement between the independent raters. In each administration, there were significant disagreements (initial scores differing by more than one point) for fewer than 1.5% of the responses. For the February and May administrations, the rate of exact agreement was higher and the rate of serious disagreement was lower than corresponding averages for the 2002–03 administration. Agreement rates in March were slightly lower. These results mirrored the pattern for the prior year where agreement rates for the March administration were slightly lower than for other administrations. The demand for rapid turnaround on a very large number of essays in the March 2003 and March 2004 administrations may have been a factor. Other factors, such as summer vacations or demand from other testing programs, may have affected results from the July 2002 administration, which did not involve such a large number of students.

Table 2.8 provides more detailed information on scores assigned by each of the two independent raters across all of the 2004 administrations. There was near perfect agreement on the essays judged to be unscorable (score level 0). There was generally good agreement on essays assigned to score levels 1 through 3. If the first reader assigned a score at one of these levels, the second reader was most likely to assign the same score. Very few essays were assigned a score of 4 and agreement at this level was correspondingly less. If the first reader assigned a score of 4, the second reader was most likely to assign a score of 3.

TABLE 2.8. Percent of 2004 Essays Assigned Each Score Level by Each Rater

First Rater	Second Rater				
	0	1	2	3	4
0	2.57	0.00	0.00	0.00	0.00
1	0.00	6.20	3.43	0.20	0.01
2	0.00	3.29	26.64	10.19	0.41
3	0.00	0.17	10.00	24.41	4.10
4	0.00	0.01	0.42	4.25	3.73
Average Score from First Rater					2.4
Average Score from Second Rater					2.4

Note: Bolded numbers indicate perfect agreement between the two raters.

Who Passed?

Initial Passing Rates

A major charge for the independent evaluation was to analyze and report performance on the CAHSEE for all students and for specific demographic groups, including economically disadvantaged students, English learners (EL), and students with disabilities (characterized as “exceptional needs students” in the legislation). Tables 2.9 and 2.10 show the ELA and mathematics passing rates for each of these demographic groups as well as for gender and ethnicity groups. The passing rates shown in these tables were calculated by dividing the total number of students who passed each subject on their first try by the number of students participating in at least one CAHSEE testing session. In the few instances where students took a CAHSEE

test more than once, results from their first attempt were used². In past years, we used fall enrollment data for the denominator, which generally overstates the number of students still in school at the time of CAHSEE testing. This year, because of NCLB requirements, records were supposed to be entered for all students to allow calculation of participation rates. Thus enrollment counts generated from the CAHSEE data were believed to be an accurate reflection of the number of students in each demographic category. We used the same approach to computing 2003 passing rates for the Class of 2005 to ensure comparability.

TABLE 2.9. Initial Passing Rates by Demographic Group—English-Language Arts

Group	Students Tested		Class of 2005		Class of 2006
	Class of 2005	Class of 2006	Prior Test Specifications	New Test Specifications	New Test Specifications
All Students	425,066	459,138	74.1%	71.6%	72.9%
Females	207,619	224,766	78.6%	76.2%	77.4%
Males	216,708	233,964	70.0%	67.2%	68.7%
1. Native American	3,717	4,227	73.0%	70.1%	70.9%
2. Asian	38,635	42,588	84.1%	82.0%	84.1%
3. Pacific Islander	2,832	3,107	73.1%	69.9%	69.3%
4. Filipino	12,475	13,349	87.2%	85.3%	86.3%
5. Hispanic	169,704	188,494	61.4%	57.8%	59.8%
6. African American	34,619	37,287	63.2%	59.9%	60.1%
7. White (not Hispanic)	157,498	165,613	87.3%	85.9%	87.0%
Economically Disadvantaged (Original Definition)	141,401	162,530	59.7%	55.9%	58.4%
Economically Disadvantaged (New Definition)	167,869	186,411	59.5%	55.7%	58.1%
English Learners	72,038	83,728	39.8%	34.9%	38.0%
Reclassified Fluent English	45,320	49,067	82.9%	80.4%	85.2%
Special Education Students	36,448	42,516	35.8%	32.2%	28.8%

² Results for the Class of 2005 reported here differ slightly from results reported previously for two reasons. First, students who took the CAHSEE prior to January 2003 are now excluded. Second, where students took the CAHSEE more than once, we used results from their initial testing only. Previously, we had included all 10th graders testing during the 2002–03 school year and not attempted to match records for students who tested more than once. These changes were made for consistency with the way that the 2004 results were processed and thus validated comparisons of initial test results for the Class of 2005 and the Class of 2006.

Overall initial passing rates increased for the Class of 2006 in comparison to the Class of 2005, after adjusting for changes in the score scale. Passing rates increased by about 1 percent in ELA and by more than 5 percent in mathematics. This fact plus the changes in the score scales led to passing rates that were nearly equal, about 72 percent, for both parts of the CAHSEE. The increase in passing rates is consistent with the finding reported in our May 2003 report on standards-based instruction (Wise et al., May 2003). In that report, it was suggested that passing rates should increase for classes after 2004 because the extent and effectiveness of standards-based instruction was improving.

TABLE 2.10. Initial Passing Rates by Demographic Group—Mathematics

Group	Students Tested		Class of 2005		Class of 2006
	Class of 2005	Class of 2006	Prior Test Specifications	New Test Specifications	New Test Specifications
All Students	425,066	459,138	57.5%	66.1%	71.8%
Females	207,619	224,766	57.6%	66.6%	72.8%
Males	216,708	233,964	57.6%	65.6%	70.8%
1. Native American	3,717	4,227	52.6%	62.5%	66.3%
2. Asian	38,635	42,588	82.2%	86.9%	90.5%
3. Pacific Islander	2,832	3,107	54.7%	63.3%	69.5%
4. Filipino	12,475	13,349	72.9%	80.8%	86.0%
5. Hispanic	169,704	188,494	40.2%	51.1%	59.2%
6. African American	34,619	37,287	35.1%	44.6%	51.9%
7. White (not Hispanic)	157,498	165,613	74.5%	81.3%	85.0%
Economically Disadvantaged (Orig. Definition)	141,401	162,530	41.1%	51.4%	59.0%
Economically Disadvantaged (New Definition)	167,869	186,411	40.6%	50.9%	58.6%
English Learners	72,038	83,728	28.9%	39.1%	47.6%
Reclassified Fluent English	45,320	49,067	62.4%	72.6%	81.9%
Special Education Students	36,448	42,516	19.8%	26.6%	27.8%

Results presented in Tables 2.9 and 2.10 include a more complete breakout by ethnicity groups than in prior years. Note, one other addition was that the definition of economically disadvantaged students was changed to be consistent with the definition used in Standardized Testing and Reporting (STAR) assessment.

Previously students were classified as being economically disadvantaged on the basis of participation in the National School Lunch Program alone. This year, students were also considered economically disadvantaged based on parents' reported education level. If the highest level indicated was less than a high school diploma, the student was also considered economically disadvantaged. In this report, we show results using both the old and new definitions for being economically disadvantaged.

For mathematics, Class of 2006 students in all categories had higher passing rates than corresponding groups of students in the Class of 2005 who tested the year before, even after accounting for the change in score scale. The increase was dramatic for some groups of disadvantaged students, more than 7 percent for economically disadvantaged students and for English Learners, but very modest for students receiving special education services. Increases for ELA were more modest and a few groups declined slightly. Passing rates for students receiving special education services declined by more than 3.5 percentage points.

Passing rates for students receiving special education services remain somewhat problematic. More than 70 percent of students receiving special education services have not yet passed either the ELA or the math test. Unless there are dramatic changes through improved remediation over the next two years, it is likely that a significant number of students receiving special education services will not be eligible to receive a diploma.

Figures 2.1 through 2.6 show initial ELA and mathematics passing rates for the Class of 2006 compared to the Class of 2005 by gender, ethnicity, and types of disadvantaged characteristics. These figures provide a graphical display of the passing rates shown in Tables 2.9 and 2.10 above.

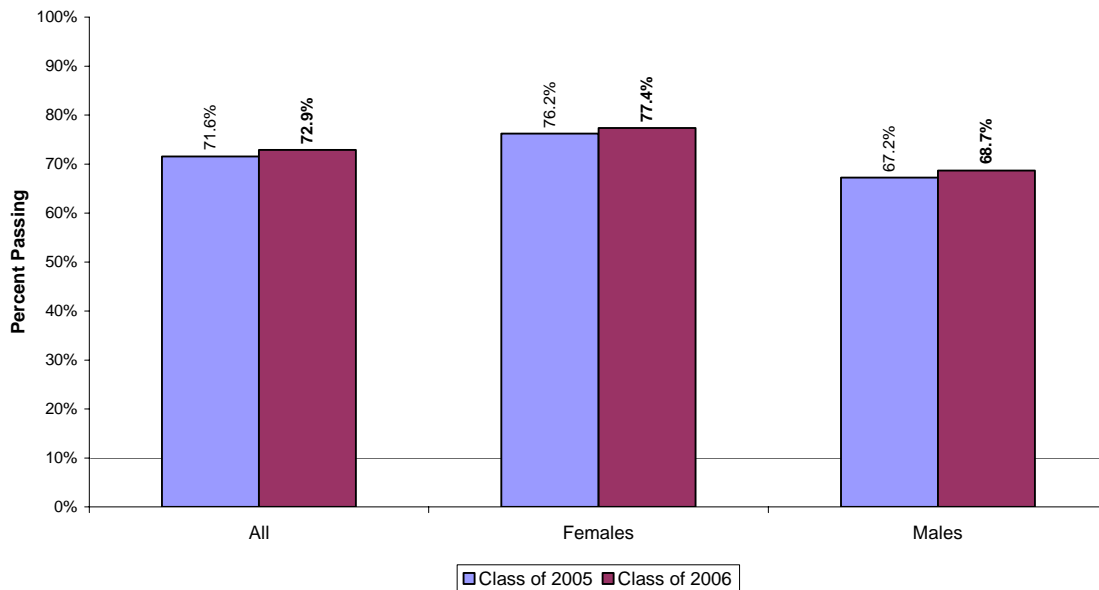


Figure 2.1. Initial ELA passing rates by gender and class.

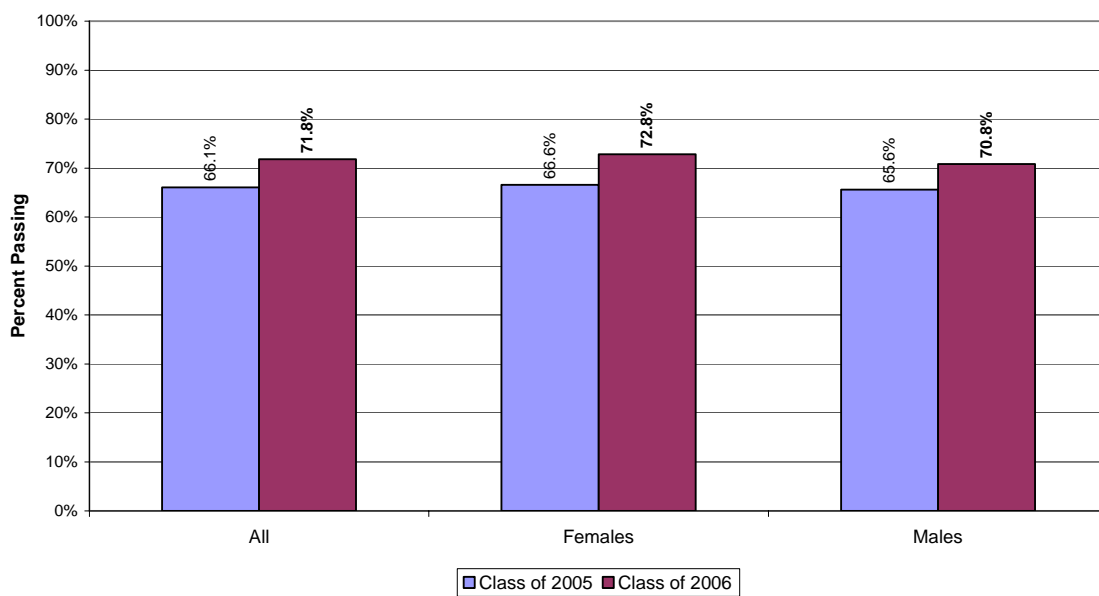


Figure 2.2. Initial mathematics passing rates by gender and class.

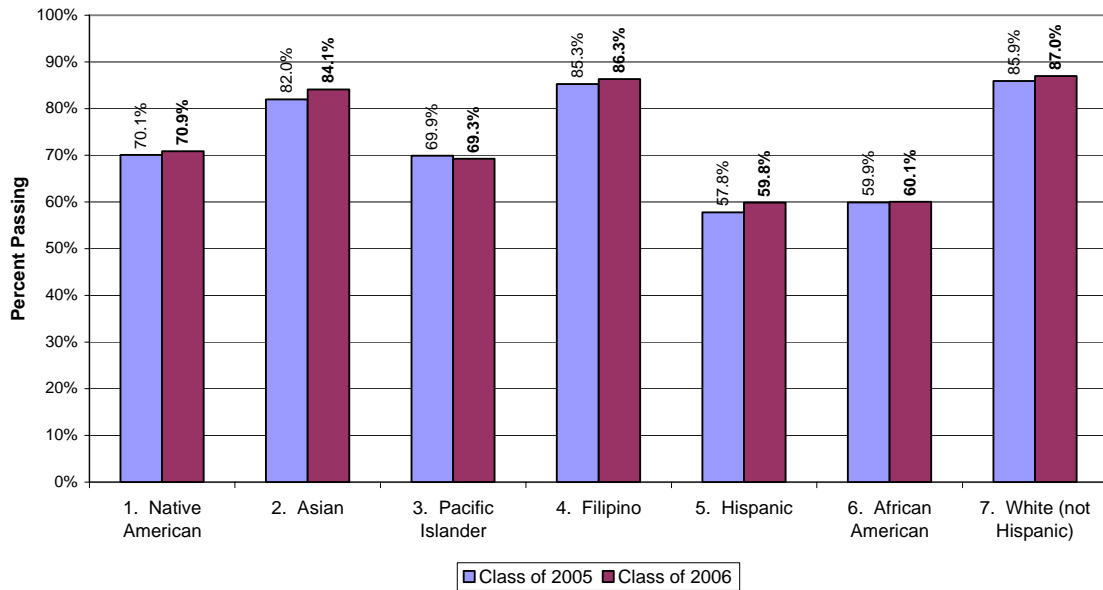


Figure 2.3. Initial ELA passing rates by race/ethnicity and class.

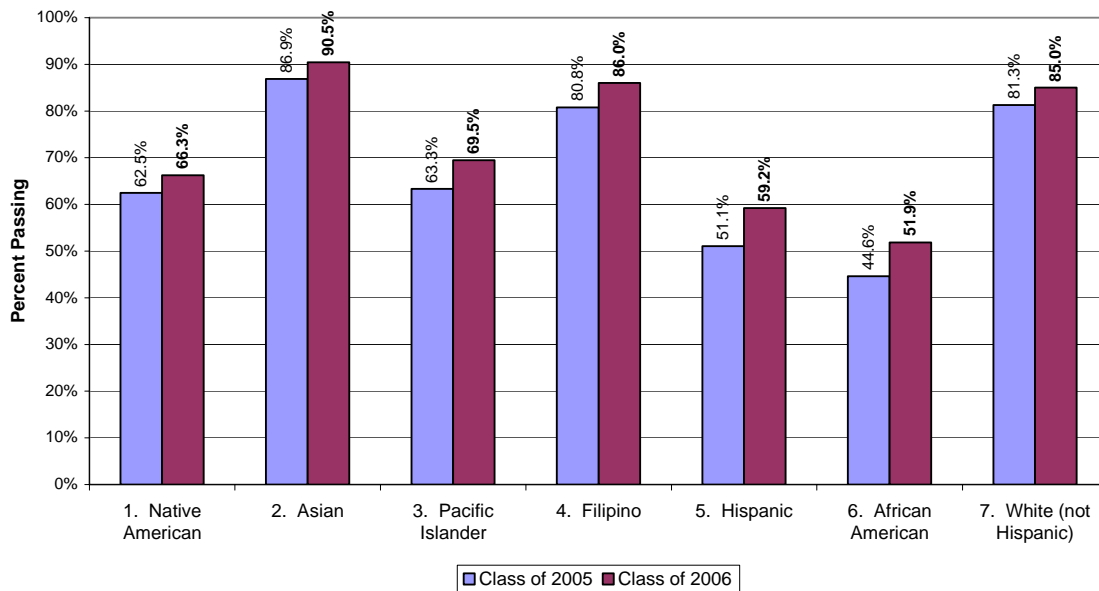


Figure 2.4. Initial mathematics passing rates by race/ethnicity and class.

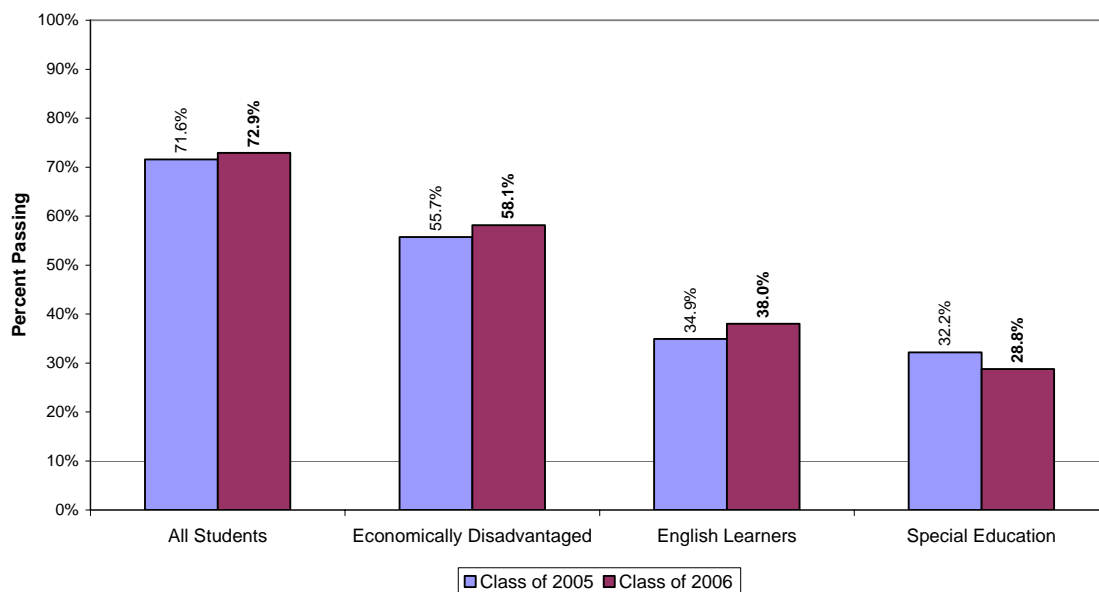


Figure 2.5. Initial ELA passing rates for special populations by class.

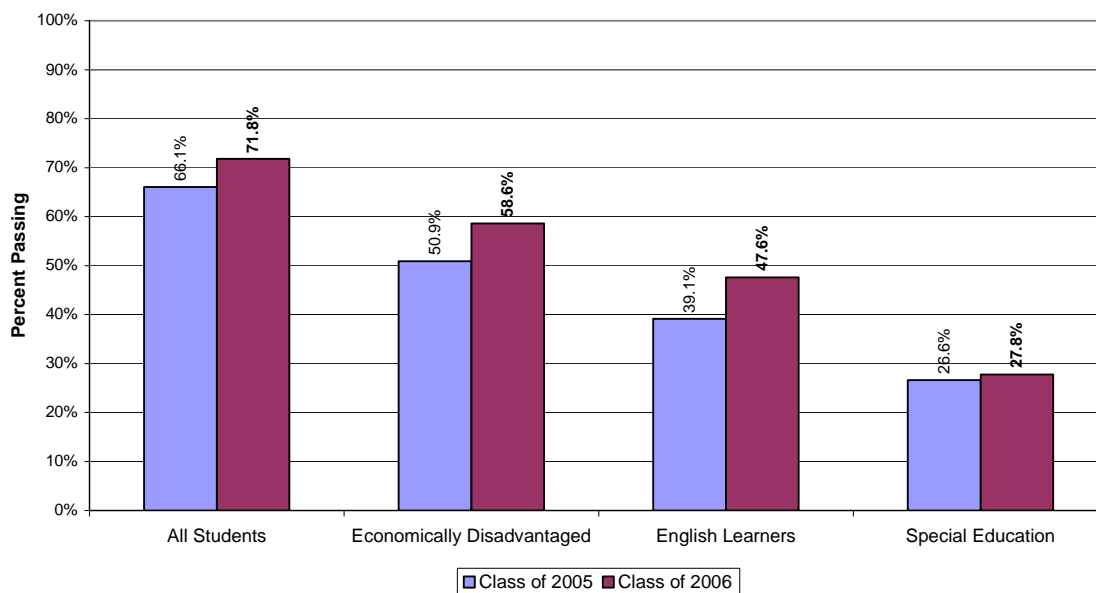


Figure 2.6. Initial mathematics passing rates for special populations by class.

The results by race and ethnicity were confounded to some extent due to interactions of race and ethnicity with other demographic characteristics. In particular, a higher proportion of Hispanic students were in special education, a higher proportion of Black and Hispanic students were economically disadvantaged

compared to White students, and a higher proportion of Hispanic students were English learners. We further analyzed test results for the census testing of the Class of 2006 to show separate race/ethnicity results within different levels of disadvantaged characteristics as shown in Table 2.11. These levels were defined to be non-overlapping as: (a) Students receiving special education services, (b) English learners who were not students receiving special education services, (c) Economically disadvantaged students who were neither English learners nor students receiving special education services, and 4) Students who were not in any of the preceding categories. Note that in this table, passing rates were based just on those tested since we did not have separate enrollment data for the categories analyzed. Passing rates here were thus slightly higher than rates based on total enrollment.

TABLE 2.11. Initial Class of 2006 Passing Rates by Student Category and Race/Ethnicity

Student Category	Race / Ethnicity	ELA		Mathematics	
		Number	Percent Passing	Number	Percent Passing
Special Education (SE) Students	Asian	1,431	36.4	1,431	45.5
	Black	5,874	16.1	5,874	12.4
	Hispanic	18,469	18.1	18,469	18.6
	White	14,975	46.2	14,975	43.4
English Learners (EL) <u>not</u> in Special Education	Asian	9,641	54.3	9,641	79.3
	Black	352	42.9	352	48.6
	Hispanic	59,390	38.5	59,390	46.3
	White	2,616	56.0	2,616	70.5
Economically Disadvantaged, but <u>not</u> EL or SE	Asian	8,978	91.8	8,978	93.1
	Black	13,072	61.3	13,072	51.8
	Hispanic	62,148	75.5	62,148	70.3
	White	18,820	80.2	18,820	76.4
All Other Students	Asian	22,538	96.8	22,538	97.0
	Black	17,989	73.9	17,989	64.9
	Hispanic	48,487	81.8	48,487	76.2
	White	129,202	93.3	129,202	91.4

Gaps in passing rates by race and ethnicity were smaller for students who were not disadvantaged than they were when all students in each race/ethnicity category were included. More striking, however, was the extent of race/ethnicity differences among students receiving special education services. Passing rates for the ELA test

were twice as high for Asian and White students in this category as they were for Black or Hispanic students. ***For math, the passing rate for students receiving special education services who were White or Asian was more than twice as high as for students receiving special education services who were Hispanic and more than three times as high as the passing rate for students receiving special education services who were Black.***

Analysis of Results for Students receiving special education services

There may be many reasons for differences in passing rates by race/ethnicity among students receiving special education services, such as differences in the nature or severity of disabilities, or differences in diagnoses and responses to those diagnoses across schools. Tables 2.12 through 2.14 show an analysis of the frequency of each primary disability category and also ELA and Mathematics passing rates by race/ethnicity. There were differences by race/ethnicity in the frequency of different disability categories, with Black and Hispanic students more likely to be coded with specific learning difficulties (a general category used for conditions such as attention deficit disorder or dyslexia) and less likely to be coded with speech impairments or other health impairments in comparison to Asian and White students. These differences might be due to differential diagnostic criteria or possibly to group differences in the likelihood that students with some types of disabilities would be taken out of public schooling. Within each primary disability category, race/ethnicity differences in passing rates mirrored closely overall race/ethnicity differences in passing rates for all students receiving special education services

TABLE 2.12. Distribution of Students Receiving Special Education Services by Primary Disability Category for Asian, Hispanic, Black, and White Students

Primary Disability Category	Percent of Special Education Students by Disability				
	All	2. Asian	5. Hispanic	6. Black	7. White
010 = Mental Retardation	1.9%	2.7	2.0%	1.7%	1.7%
020 = Hard of Hearing	1.0%	2.1%	1.0%	0.6%	0.9%
030 = Deaf	0.5%	1.3%	0.6%	0.4%	0.4%
040 = Speech/Lang. Impairment	5.4%	15.2%	5.2%	3.5%	5.5%
050 = Visual Impairment	0.5%	1.1%	0.4%	0.3%	0.6%
060 = Emotional Disturbance	6.6%	4.8%	3.7%	10.5%	8.9%
070 = Orthopedic Impairment	0.8%	1.3%	0.8%	0.4%	0.9%
080 = Other Health Impairment	4.7%	4.3%	2.6%	3.1%	7.9%
090 = Specific Learning Disability	77.3%	64.6%	82.8%	78.8%	71.2%
100 = Deaf-Blindness	0.0%	0.0%	0.0%	0.0%	0.0%
110 = Multiple Disabilities	0.3%	0.3%	0.4%	0.2%	0.3%
120 = Autism	0.7%	2.2%	0.3%	0.4%	1.2%
130 = Traumatic Brain Injury	0.2%	0.1%	0.2%	0.1%	0.3%
Total %	100.0%	100.0%	100.0%	100.0%	100.0%
Total N	40,749	1,431	18,469	5,874	14,975

TABLE 2.13. ELA Passing Rates for Students Receiving Special Education Services by Primary Disability Category and Ethnicity

Primary Disability Category	Percent Passing for Each Disability Category				
	All	2. Asian	5. Hispanic	6. Black	7. White
010 = Mental Retardation	1.4%	2.6%	1.4%	0.0%	1.9%
020 = Hard of Hearing	34.4%	36.7%	23.8%	15.2%	54.2%
030 = Deaf	16.3%	26.3%	1.9%	16.7%	36.9%
040 = Speech/Lang. Impairment	46.0%	58.3%	33.1%	36.1%	60.3%
050 = Visual Impairment	49.5%	66.7%	28.4%	42.1%	64.7%
060 = Emotional Disturbance	37.3%	48.5%	27.3%	17.5%	51.1%
070 = Orthopedic Impairment	46.5%	50.0%	38.1%	30.8%	58.1%
080 = Other Health Impairment	51.0%	42.6%	32.6%	31.1%	61.8%
090 = Specific Learning Disability	25.6%	30.5%	16.5%	14.5%	43.2%
100 = Deaf-Blindness	-	-	-	0.0%	-
110 = Multiple Disabilities	16.9%	-	17.6%	9.1%	19.2%
120 = Autism	52.2%	48.4%	32.1%	23.7%	62.6%
130 = Traumatic Brain Injury	29.4%	-	23.8%	-	36.6%
All Special Education Students	28.8%	36.4%	18.1%	16.1%	46.2%
Total N	42,749	1,431	18,469	5,874	14,975

TABLE 2.14. Mathematics Passing Rates by Race/Ethnicity for Students Receiving Special Education Services by Primary Disability Category

Primary Disability Category	Percent Passing for Each Disability Category				
	All	2. Asian	5. Hispanic	6. Black	7. White
010 = Mental Retardation	2.7%	7.7%	2.2%	2.0%	3.1%
020 = Hard of Hearing	40.8%	63.3%	28.5%	18.2%	59.5%
030 = Deaf	28.4%	52.6%	14.0%	25.0%	46.2%
040 = Speech/Lang. Impairment	47.7%	67.0%	34.5%	33.7%	61.6%
050 = Visual Impairment	44.6%	73.3%	26.9%	26.3%	57.7%
060 = Emotional Disturbance	28.2%	45.6%	19.7%	11.5%	39.5%
070 = Orthopedic Impairment	39.1%	55.6%	32.3%	15.4%	48.8%
080 = Other Health Impairment	44.5%	49.2%	28.4%	19.4%	54.5%
090 = Specific Learning Disability	25.3%	40.0%	17.3%	11.4%	41.6%
100 = Deaf-Blindness	-	-	-	-	-
110 = Multiple Disabilities	18.4%	-	23.0%	0.0%	15.0%
120 = Autism	47.4%	58.1%	26.8%	9.1%	56.6%
130 = Traumatic Brain Injury	29.4%	-	26.2%	-	31.7%
All Special Education Students	27.8%	45.5%	18.6%	12.4%	43.4%
Total N	42,516	1,431	18,469	5,874	14,975

Analysis of Results for English Learners

We compared the passing rates for students who were currently English learners and students who were previously English learners but had been reclassified as fluent English proficient (RFEP) as shown in Tables 2.9 and 2.10 above. The results are striking. ELA passing rates for English Learners were understandably low, less than 40 percent compared to nearly 73 percent overall. Perhaps because they had to demonstrate language proficiency to be reclassified, students who were no longer English learners passed at higher rates than students in general, 85 percent compared to 73 percent for the Class of 2006. Results for the Class of 2005 were similar.

What may be more surprising is that students who were reclassified as proficient in English also had higher passing rates on the mathematics test compared to students in general, 82 percent versus 72 percent. ***These results suggest that if English learners achieve fluency, the ELA portion of the CAHSEE should not pose a significant barrier for most of them. In addition, these students do not appear to be disadvantaged on the mathematics test once English proficiency is achieved.***

Analysis of Results by Mathematics Courses Taken

We also analyzed passing rates on the mathematics part of the CAHSEE for students who had completed different levels of math courses. Table 2.15 shows the distribution of the highest level of mathematics course completed by students in the Class of 2005 and the Class of 2006. Table 2.16 shows the percent of students in key demographic groups who have not yet taken Algebra I, have taken Algebra I only, or have taken courses beyond Algebra I. Table 2.17 shows the CAHSEE mathematics passing rates for students at each course level.

TABLE 2.15. Distribution of Students by Highest Math Course Taken

Highest Math Course Taken	Class of 2005		Class of 2006	
	Number of Students	Percent of Students at each Level	Number of Students	Percent of Students at each Level
General Math	12,253	3.0%	11,678	2.6%
Pre-Algebra	47,567	11.5%	50,222	11.1%
Algebra I	111,487	26.9%	121,148	26.9%
Integrated Math I	2,727	0.7%	2,605	0.6%
Integrated Math II	4,806	1.2%	3,986	0.9%
Geometry	123,857	29.8%	135,589	30.1%
Algebra II	72,560	17.5%	83,183	18.4%
Advanced Math	7,757	1.9%	9,986	2.2%
Unknown	31,889	7.7%	32,531	7.2%
All Students	414,903	100.0%	450,928	100.0%

TABLE 2.16. Trends in Math Courses Taken by Demographic Group*

Group	Class of 2005			Class of 2006		
	% Not Taking Algebra	% Algebra Only	% Beyond Algebra	% Not Taking Algebra	% Algebra Only	% Beyond Algebra
All Students	15.6%	29.8%	54.6%	14.8%	29.6%	55.6%
Females	14.2%	28.0%	57.8%	13.5%	27.4%	59.1%
Males	17.0%	31.5%	51.5%	16.2%	31.6%	52.2%
1. Native American	23.5%	33.6%	42.8%	21.4%	35.7%	42.9%
2. Asian	6.9%	14.5%	78.7%	5.5%	13.9%	80.6%
3. Pacific Islander	14.4%	31.0%	54.6%	14.7%	32.7%	52.6%
4. Filipino	8.9%	19.4%	71.7%	8.3%	19.6%	72.0%
5. Hispanic	19.6%	38.4%	42.0%	18.8%	37.8%	43.4%
6. African American	17.9%	33.5%	48.6%	17.1%	34.3%	48.6%
7. White (not Hispanic)	13.5%	24.6%	62.0%	12.8%	24.1%	63.1%
Economically Disadvantaged (Original Definition)	18.9%	36.7%	44.4%	18.1%	36.1%	45.8%
Economically Disadvantaged (New Definition)	19.5%	37.2%	43.4%	18.6%	36.6%	44.9%
English Learners	21.5%	44.7%	33.8%	20.3%	42.9%	36.8%
Reclassified Fluent English	11.1%	23.8%	65.1%	10.2%	22.9%	66.9%
Special Education Students	37.3%	43.2%	19.5%	34.6%	46.4%	19.0%

* Students whose highest mathematics course was unknown were excluded from this table.

TABLE 2.17. 2004 Mathematics Passing Rates by Class and Highest Math Course Taken

Highest Math Course Taken	Class of 2005		Class of 2006
	Previous Score Scale	New Score Scale	New Score Scale
General Math	18.6%	26.1%	31.2%
Pre-Algebra	34.9%	46.5%	53.8%
Algebra I	38.5%	51.3%	57.7%
Integrated Math I	55.7%	66.1%	75.4%
Integrated Math II	75.8%	83.2%	90.0%
Geometry	76.2%	84.4%	87.1%
Algebra II	91.0%	93.4%	95.3%
Advanced Math	98.3%	98.8%	99.4%
Unknown	30.4%	39.2%	50.0%
All Students	57.5%	66.1%	71.8%

At 10th grade, the Class of 2006 had taken slightly higher levels of mathematics compared to the Class of 2005. The percent of students who had not yet taken Algebra I dropped from 15.6 percent to 14.8 percent and the percent of students taking mathematics courses beyond geometry in the 10th grade rose from 19.4 percent to 20.6 percent. Note, however, that a much larger proportion of students receiving special education services had not yet taken Algebra.

A bigger change is that Class of 2006 passing rates at each course level were higher than the Class of 2005 passing rates for the same levels. For students taking Algebra I, the passing rate rose from 51.3 percent to 57.6 percent, after adjusting for the change in the score scale. It is likely that this increase resulted from better preparation at lower grade levels so that more students in the Class of 2006 were prepared to succeed in Algebra I and higher courses.

Testing Accommodations and Modifications

Students with disabilities who could not be assessed using regular test administration procedures were allowed specific accommodations or, in some cases, modifications to test administration procedures. The difference is that modifications involved changes that would alter the construct measured and so scores from modified administrations were not valid for passing the CAHSEE. (See CAHSEE regulations posted on the CDE Web site.) In prior years, we analyzed results separately by the type of accommodation or modification used. Beginning with the 2004 administrations, however, detailed information on accommodations was not collected. We judged that the relatively minimal information that was collected did not warrant more extensive analyses.

Overall Passing Rate

As a result of efforts to match records across administrations, we were able to estimate the rate at which 10th grade students had passed both parts of the exam and fully satisfied the CAHSEE requirement. These analyses included results from retest administrations to a small number of students as well as results from each student's initial attempt at each part of the CAHSEE. Again, we went back and reanalyzed for the Class of 2005 from the 2003 CAHSEE administrations, matching records across administrations and adjusting for the change in the score scales. Table 2.18 shows the percentage of students, overall and in specific demographic categories, who passed both parts of the CAHSEE by the end of the 10th grade. Note that these analyses require access to identifying information about the students tested so that students who made up one part of the CAHSEE in a subsequent administration can be properly accounted for. The required identifiers are not included on the CAHSEE data files provided to the CDE.

Overall passing rates increased significantly, even after adjusting for the score scale changes. The one exception was for students receiving special education services, where the combined passing rate dropped from 19.8 to 18.8 percent. Figure 2.7 compares 10th grade combined passing rates for special populations in the classes of 2005 and 2006, after adjusting for changes to the score scale.

TABLE 2.18. Percent of Students Passing Both Parts of the CAHSEE by Demographic Group

Group	Class of 2005		Class of 2006
	Prior Test Specifications	New Test Specifications	New Test Specifications
All Students	53.8%	59.3%	64.3%
Females	54.8%	61.4%	67.1%
Males	53.0%	57.3%	61.7%
1. Native American	48.7%	55.6%	59.9%
2. Asian	75.9%	77.7%	81.5%
3. Pacific Islander	50.4%	56.0%	60.4%
4. Filipino	70.5%	76.3%	80.8%
5. Hispanic	36.1%	42.5%	49.0%
6. African American	32.6%	39.5%	45.3%
7. White (not Hispanic)	71.5%	76.5%	80.7%
Economically Disadvantaged (Original Definition)	36.0%	41.7%	48.0%
Economically Disadvantaged (New Definition)	35.6%	41.3%	47.7%
English Learners	20.8%	24.1%	29.6%
Reclassified Fluent English	59.4%	66.7%	76.3%
Special Education Students	16.8%	19.9%	18.8%

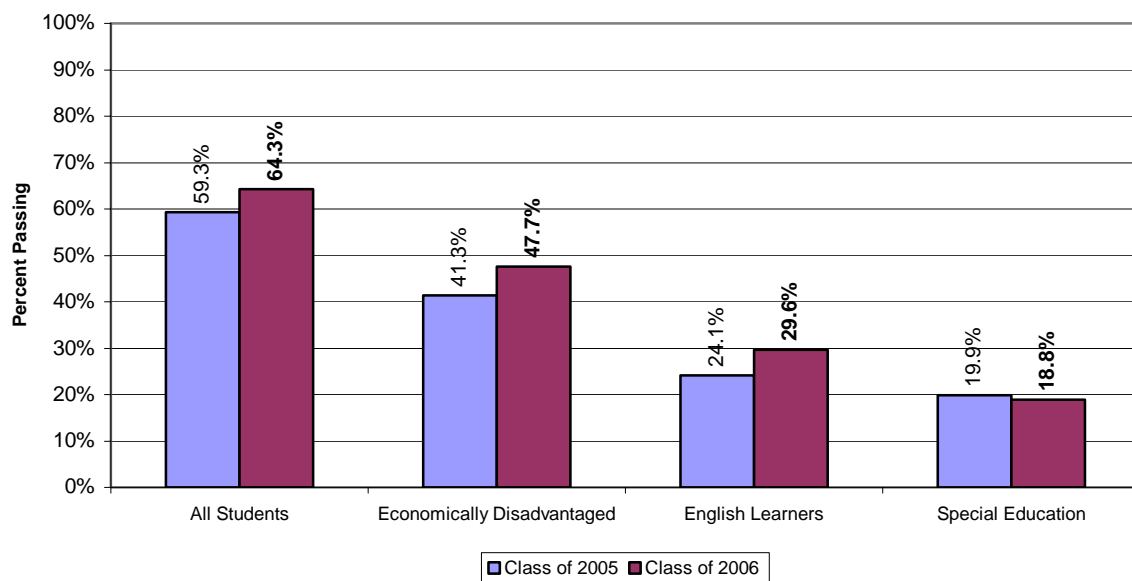


Figure 2.7. Combined passing rates for special populations by class.

Other Outcomes

Enrollment Declines

A key question addressed in the independent evaluation of the CAHSEE is the impact of the new graduation requirement on dropout and graduation rates. While we cannot track individual students, overall enrollment figures provide an indication of the extent to which students in each grade do not proceed to the next grade with the rest of their classmates.

Table 2.19 and Figure 2.8 show the decrease in enrollment from the 9th to the 10th grade. In the text that follows, we refer to this difference as a “drop-off” in enrollment. Some of the difference may be due to students who did not finish sufficient coursework credits to be classified as 10th graders rather than that they dropped out of school altogether. Results indicate that this 10th grade drop-off rate bounced back up for the Class of 2006. This was primarily due to a larger than usual increase in the 9th grade enrollment, suggesting that more students are being retained in 9th grade.

TABLE 2.19. Enrollment Declines from 9th Grade to 10th Grade

School Year	High School Class	10 th Grade Enrollment	Prior Year's 9 th Grade Enrollment	Decrease	
				Number	Percent
2003–2004	2006	490,214	522,108	31,894	6.1%
2002–2003	2005	471,648	499,505	27,857	5.6%
2001–2002	2004	459,588	485,910	26,322	5.4%
2000–2001	2003	455,134	482,270	27,136	5.6%
1999–2000	2002	444,064	468,162	24,098	5.2%
1998–1999	2001	433,528	458,650	25,122	5.5%
1997–1998	2000	423,865	450,820	26,955	6.0%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

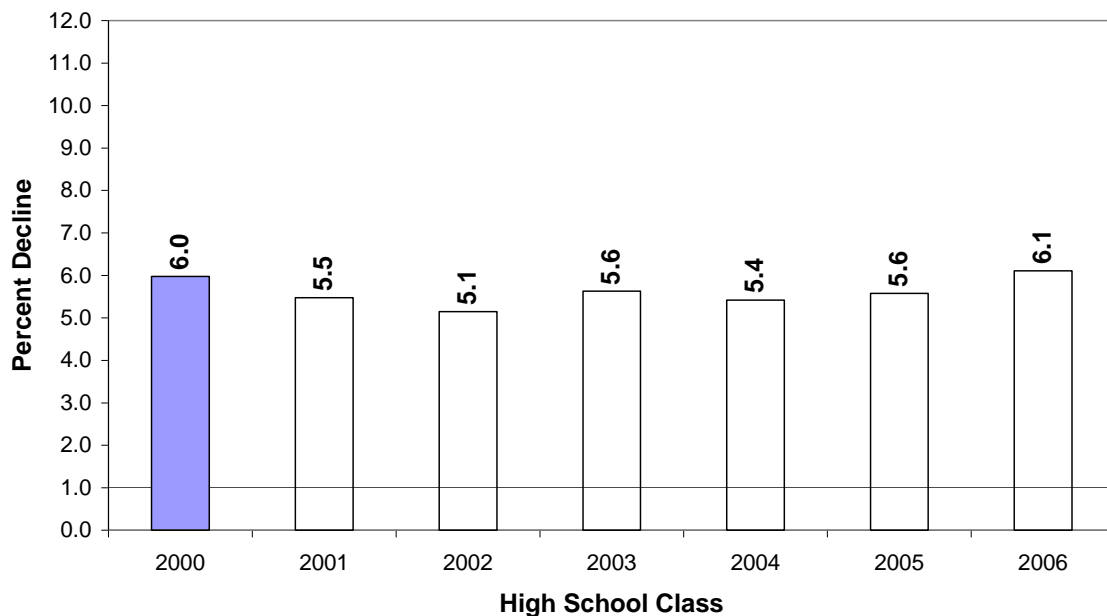


Figure 2.8. Enrollment declines from 9th to 10th grade by high school class.

Table 2.20 and Figure 2.9 show similar information for the drop-off between 10th and 11th grade enrollments. **Results show that the drop-off rate between 10th and 11th grade enrollments continued the significant decline observed last year for the Class of 2004.** Initially, there were concerns that the CAHSEE requirement would increase dropout rates. In fact, dropout rates have decreased. It seems plausible that increased remediation opportunities introduced to help the Class of 2004 pass the CAHSEE have instead led to more students staying in school.

TABLE 2.20. Enrollment Declines from 10th Grade to 11th Grade

School Year	High School Class	11 th Grade Enrollment	Prior Year's 10 th Grade Enrollment	Decrease	
				Number	Percent
2003–2004	2005	440,540	471,648	31,108	6.6%
2002–2003	2004	428,117	459,588	31,471	6.8%
2001–2002	2003	420,295	455,134	34,839	7.7%
2000–2001	2002	409,119	444,064	34,945	7.9%
1999–2000	2001	401,246	433,528	32,282	7.4%
1998–1999	2000	390,742	423,865	33,123	7.8%
1997–1998	1999	378,819	413,725	34,906	8.4%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

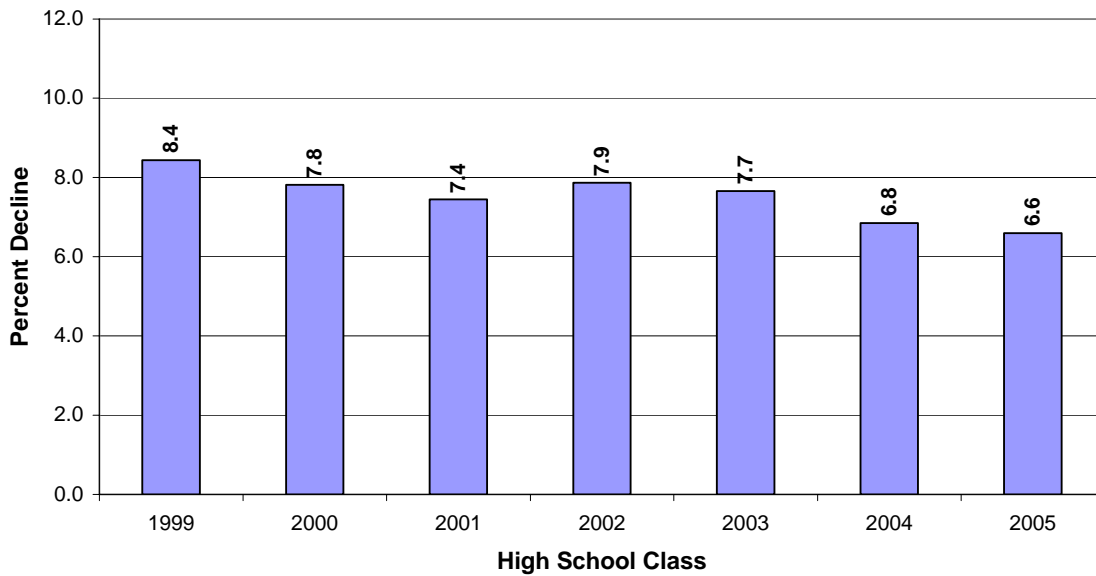


Figure 2.9. Enrollment declines from grades 10 to 11 by high school class.

Table 2.21 and Figure 2.10 show similar information for the drop-off between 11th and 12th grade enrollments. Last year, it was observed that 11th grade drop-off rates were much lower for the Class of 2004 than for previous classes. This year we see that trend continued with a significant decline in the 12th grade drop-off rate for the Class of 2004. ***This decline provides further evidence that the CAHSEE requirement is not leading to increased dropout rates.***

TABLE 2.21. Enrollment Declines from 11th Grade to 12th Grade

School Year	High School Class	12 th Grade Enrollment	Prior Year's 11 th Grade Enrollment	Decrease	
				Number	Percent
2003–2004	2004	395,194	428,117	32,923	7.7%
2002–2003	2003	385,181	420,295	35,114	8.4%
2001–2002	2002	365,907	409,119	43,212	10.6%
2000–2001	2001	357,789	401,246	43,457	10.8%
1999–2000	2000	347,813	390,742	42,929	11.0%
1998–1999	1999	334,852	378,819	43,967	11.6%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

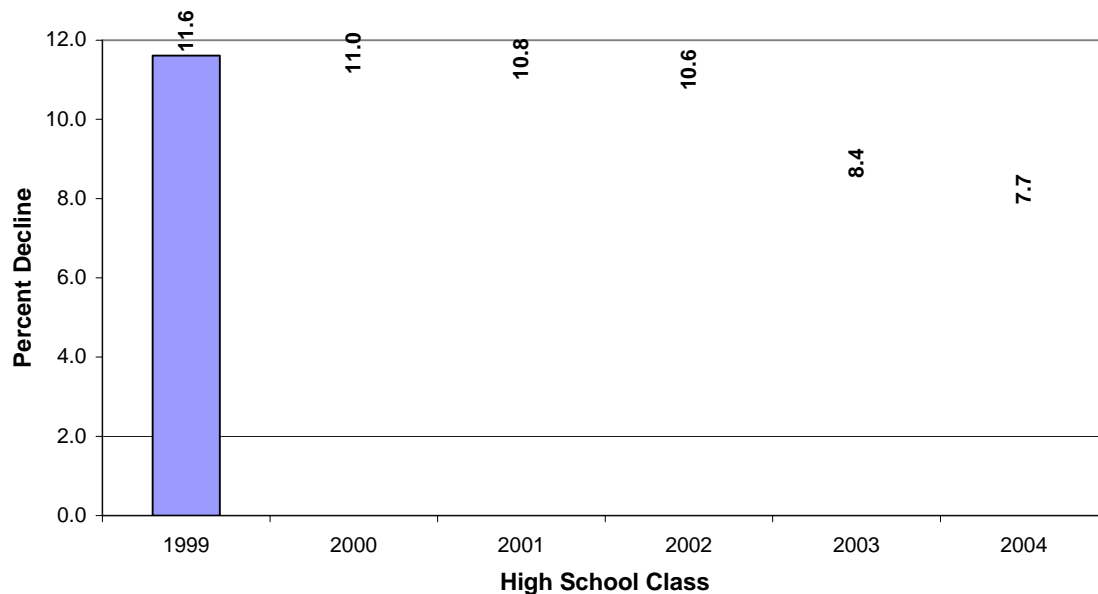


Figure 2.10. Enrollment declines from grades 11 to 12 by high school class.

STAR Results

We looked to see whether CAHSEE results for the Classes of 2004 through 2006 were similar to results from STAR, California's standards-based accountability assessment. STAR results provide an independent view of performance of students in different high school classes. To the extent that results are similar, STAR results may also predict relative performance on the CAHSEE for future high school classes. Table 2.22 shows results from the STAR 2004 ELA assessment for the 10th and 9th grades in comparison to results from the 2002 and 2003 assessments. For the 10th grade assessment, students in the Class of 2006 were assessed in 2004, students in the Class of 2005 were assessed in 2003 and students in the Class of 2004 were assessed in 2002. The Class of 2006 showed modest gains in comparison to the prior two classes with a 2 percent increase in the percent scoring at the basic level or above and an average score increase of about six scale points.

Students in the Class of 2006 were assessed in the 2003 9th grade assessment. Results from this assessment are compared to results from the Class of 2005 assessed in the 2002 9th grade assessment and the Class of 2007 in the 2004 9th grade assessment. Results indicate that the Class of 2006 performed significantly better than the Class of 2005 and also slightly better than the Class of 2007. Compared to the Class of 2005, the number of students scoring at least basic increased by 6 percentage points and the average scale score increased by more than 11 points. Taken together, results shown in Table 2.22 indicated larger ELA gains for the Class of 2006 on STAR than was found on the CAHSEE. Increased participation in the CAHSEE, including more lower-performing students, may explain some differences between results for the two testing programs.

TABLE 2.22. Results from the STAR 2003 and 2002 9th and 10th Grade ELA Assessments

STAR Results for Grade 10 ELA				
Assessment Year	2002	2003	2004	Gain
High School Class	Class of 2004	Class of 2005	Class of 2006	2002–2004
% at least Basic	63	63	65	2%
Mean Scale Score	322.4	324.5	328.1	5.7
STAR Results for Grade 9 ELA				
Assessment Year	2002	2003	2004	Gain
High School Class	Class of 2005	Class of 2006	Class of 2007	2002–2004
% at least Basic	63	69	68	5%
Mean Scale Score	321.4	332.9	330.6	9.2

STAR does not include a common assessment of mathematics skills for all students in the 9th and 10th grades. Instead, assessments are targeted to specific courses and administered to students who complete these courses. Table 2.23 shows results for the Algebra I assessment, the most common assessment for students in the 9th and 10th grades. For each grade level, performance on the Algebra I assessment decreased slightly in 2003 and further in 2004. This is balanced against the fact that more students at each grade level were taking and being assessed in Algebra I. The percentage of at least basic and average scale scores is higher for students taking Algebra I at earlier grade levels. As the proportion of such students increases, overall mathematics achievement should increase correspondingly. Current STAR results do not, however, provide a clear prediction of CAHSEE performance for future classes.

TABLE 2.23. Results from the STAR 2002 to 2004 9th and 10th Grade Algebra I Assessments

STAR Results for Algebra I				
Assessment Year	2002	2003	2004	Gain
8th Grade	Class of 2006	Class of 2007	Class of 2008	(2002–2004)
Percent Tested	29%	32%	38%	9%
% at least Basic	69%	67%	62%	-7%
Mean Scale Score	337	336.8	330.9	-6.1
9th Grade	Class of 2005	Class of 2006	Class of 2007	
Percent Tested	32%	37%	43%	11%
% at least Basic	54%	51%	44%	-10%
Mean Scale Score	308.9	306.3	301.2	-7.7
10th Grade	Class of 2004	Class of 2005	Class of 2006	
Percent Tested	21%	25%	29%	8%
% at least Basic	40%	35%	29%	-11%
Mean Scale Score	290.8	289.5	286.3	-4.5
11th Grade	Class of 2003	Class of 2004	Class of 2005	
Percent Tested	10%	13%	16%	6%
% at least Basic	35%	30%	22%	-13%
Mean Scale Score	286.7	284.5	279.4	-7.3

Summary

Results from the three CAHSEE administrations during the 2003–04 school year were analyzed for students in the high school Class of 2006 who took the CAHSEE as 10th graders. Results from the 2002–03 administrations were reanalyzed for 10th grade students in the high school Class of 2005 in a comparable manner so that trends across these two classes could be displayed. Several steps were required to produce comparable results for these two cohorts. First, some students in each cohort participated in more than one test administration, either as a makeup session or to retry a test they had not passed previously. Records were matched as well as possible, even though statewide student identifiers were not yet implemented for use with the CAHSEE. Second, a new score scale was introduced with the 2004 CAHSEE administrations. We estimated scores and changes in passing rates on this new scale for students who participated in the 2003 assessments. Finally, we examined the accuracy of score equating across administrations and consistency in scoring the student essays and found no problems of note.

Performance on the CAHSEE improved significantly for the Class of 2006 relative to the Class of 2005, even after differences in the score scales were accounted for. Overall passing rates were above 70 percent on each test individually. Furthermore, 64 percent of the 10th grade students passed both parts, an increase of about 5 percentage points. Performance improved for nearly all demographic groups. The one exception was for students receiving special education services where the combined passing rate remained below 20 percent.

Results for students receiving special education services were analyzed by type of disability and by ethnic groups. *The difference in pass rates among race/ethnicity groups of students receiving special education services was pronounced.* Only 13 percent of African American and 19 percent of Hispanic students receiving special education services passed the mathematics test compared to about 45 percent of the Asian and White students. Results for the ELA test were similar.

As in earlier administrations, ELA passing rates for English learners who had been redesignated as fluent English proficient actually outperformed other student groups, suggesting that the lower passing rates for English learners will disappear once they achieve English proficiency. For math, passing levels were once again closely related to level of math coursework completed. There were modest increases in courses taken and also significant gains in CAHSEE passing rates for each increase in course level. The latter finding suggests that students were better prepared to take these courses based on success with earlier coursework.

One final finding in analyzing results from the 2002–03 CAHSEE administrations was that there continue to be some issues with record-keeping and possibly with schools' understanding of CAHSEE regulations and procedures. For instance, some students in the Class of 2006 appear to have taken one or both of the CAHSEE tests more than once, even though that was not intended by the CDE. Also, while the quality of the data available for analysis continues to improve, issues such as missing birth dates make some analyses more difficult than they should be.